REMARKS

Claims 1-29, 37, 38, 40-44, and 46 are pending in the application with claims 1, 9, 14, 15, 27, 41, 44, and 46 amended herein.

Pages 5-9 of the February 14, 2008 Decision on Appeal (Decision) affirm rejection of claim 44 for failing to comply with the enablement requirement essentially because the recited distribution showerhead is a novel aspect of claim 44 and, thus, constitutes new matter. Applicant herein amends claim 44 to set forth a apparatus including a distribution showerhead positioned to receive deposition gas from an opening, wherein the improvement comprises a deposition chamber and a valve assembly. Consequently, by rewriting claim 44 in a format allowed by 37 CFR 1.75(e), the distribution showerhead is expressly set forth as matter which is conventional or known. The improvement comprises, among other features, the opening being formed completely through a thickness of the lid, having a central axis entirely within the opening, and defining at least a part of a valve seat. The valve assembly is positioned at least partially within the opening to match a valve plug or diaphragm with the valve seat. The amendment to claim 44 regarding the central axis is supported at least by page 12, lines 9-11 and page 13, lines 7-14 of the present specification. Since the lack of enablement rejection constitutes the only rejection of record for claim 44, such claim is allowable.

Pages 9-10 of the Decision affirm rejection of claims 41 and 46 as being anticipated by Posa on the ground that Figures 4 and 5 of Posa

allegedly show the single-piece lid and the lid having a thickness which is similar to a thickness of the chamber body of claims 41 and 46. Applicant notes that the Decision contradicts the finding in W.E. Hall Co., Inc. v. Atlanta Corrugating, LLC, 370 F.3d 1343, 1349-50 (Fed. Cir. 2004) that the term "single piece construction" possesses an ordinary meaning that is sufficiently clear to make resort to a dictionary unnecessary and that excludes constructions including multiple pieces. Applicant uses the ordinary meaning of term "single-piece lid." Additionally, Applicant amends claims 41 and 46 to specify that the single-piece lid lacks any piece-to-piece interface.

Regarding the lid and chamber body similar thicknesses, it is unclear from the Decision on what basis Figures 4 and 5 of Posa may be considered to show the similar thicknesses. Specifically, it is readily apparent that the wall thickness of vent chamber 18 is much less than the thickness of manifold 300. Perhaps the Decision equates the outer diameter of vent chamber 18 to the claimed "thickness of the chamber body." Accordingly, Applicant amends claims 41 and 46 to set forth that the lid has a thickness which is similar to a shell thickness of the chamber body. Essentially, "shell thickness" is synonymous with "wall thickness," but the term "shell" is used to avoid confusion with the definition for "chamber wall" on page 6, lines 17-19 of the present specification. As a result, it should be clear that Posa fails to disclose the similar thicknesses set forth in claims 41 and 46.

Applicant acknowledges the allegations on page 3 of the August 12, 2008 Supplemental Examiner's Answer (Answer) that proportions of features

in a drawing are not evidence of actual proportions when drawings are not to scale. However, the express text of Posa describing the function of manifold 300 supports the conclusion that manifold 300 has a different thickness in comparison to the walls of vent chamber 18.

Applicant asserts that no person of ordinary skill would consider the Posa structures to have a similar thickness given the different function of the structures. That is, the thickness of manifold 300 accommodates process paths 302, vent paths 308, valve cavity 110, second valve cavity 118, and enough additional thickness to provide structural support. The walls of vent chamber 18 merely provide structural support for operating at process pressures.

Despite the different functions of the two structures, the Office has not presented evidence of why a person of ordinary skill would consider the thickness of the two structures to be similar. Applicant asserts no evidence exists that a person of ordinary skill would make the walls of vent chamber 18 with a thickness similar to manifold 300 since the additional thickness in the walls of vent chamber 18 would constitute a significant waste of unnecessary material. Applicant also asserts no evidence exists that a person of ordinary skill would make manifold 300 with a thickness similar to the walls of vent chamber 18. Process paths 302, vent paths 308, valve cavity 110, second valve cavity 118, and enough additional thickness could not be reasonably accommodated in the thickness of the walls of vent chamber 18. Even if technically possible to form such structures in a thickness of the walls of vent

chamber 18 adequate for structural support, the paths and cavities would be so small as to severely restrict flow of process gases. At least for the indicated reasons, Posa fails to show the claimed lid thickness which is similar to a shell thickness of the chamber body.

Since Posa fails to disclose every limitation of claim 41 or 46, Applicant asserts that such claims and those depending therefrom are patentable. Claim 43 depends from claim 41 and sets forth part of the valve seat comprised by the portion of the lid is defined by a beveled lid surface. Posa fails to show the subject matter of claim 43.

Upon remand, the Answer rejected claims 1-8 and 37 as being anticipated by Posa partially on the ground that Posa shows the claimed chamber lid and chamber body having similar thicknesses. However, claim 1 is amended herein to set forth the chamber lid and a shell of the chamber body having similar thicknesses. In view of the deficiencies of Posa as applied to claims 41 and 46 in showing similar thicknesses, Applicant asserts that claim 1 is patentable.

Page 11 of the Decision affirmed rejection of claim 9 partially on the ground that Fukui shows fence 14 as integral with valve holder 7 in Figure 1. Consequently, Applicant herein amends claim 9 to set forth a CVD apparatus that includes, among other features, a deposition chamber having a lid and a shell of a body with similar thicknesses and an isolation mechanism proximate a chemical opening completely through the lid. A part of the lid having the similar thickness provides a functional component of the isolation

mechanism such that the isolation mechanism would be incomplete, nonfunctional, or otherwise not able to isolate material delivery from reaching the chamber absent the lid. If considering fence 14 of Fukui to describe the claimed lid and valve holder 7 to describe the claimed isolation mechanism, it is readily apparent that fence 14 does not provide a functional component of valve holder 7. Valve holder 7 cannot itself be considered to provide the functional component of the isolation mechanism since it does not constitute a part of a lid having a similar thickness to a shell of a chamber body. At least for such reason, claim 9 is patentable.

Pages 11-12 of the Decision affirmed rejection of claim 15 partially on the ground that valve holder 7 of Fukui may be fairly characterized as forming a part of a chamber lid since it occupies a part of the top of a chamber formed by fence 14. Consequently, Applicant herein amends claim 15 to specify that the single-piece removable lid lacks any piece-to-piece interface. No support exists for a conclusion that fence 14 and valve holder 7 somehow provide a single-piece removable lid. Also, claim 15 includes a valve body with a portion of the single-piece lid as part of the valve body. Fence 14 does not form any part of a valve body. Apparently then, Fukui cannot be considered to describe the claimed single-piece lid and claim 15 is patentable.

Page 12 of the Decision affirmed rejection of claim 27 partially on the ground that valve holder 7 may be fairly considered to form a part of a lid further including part of fence 14. Consequently, Applicant herein amends claim 27 to set forth a deposition chamber having a lid and a body with

similar thicknesses and an opening completely through the similar thickness of the lid and defined by sidewalls forming a part of the similar thickness of the lid. At least a part of the housing of a valve body includes at least a part of an outer surface of the lid on the similar thickness, at least a part of opening sidewalls of the lid through the similar thickness, or both. At least a part of a seat of the valve body includes at least a part of an inner surface of the lid on the similar thickness, at least a part of the opening sidewalls of the lid through the similar thickness, or both. Since the only structures in Fukui reasonably related to describing a valve body having a housing and a seat pertain to valve holder 7, it will be appreciated that Fukui fails to describe the claimed housing and seat associated with portions of the lid of similar thickness to the deposition chamber body. At least for such reasons, claim 27 is patentable.

Page 12 of the Decision affirms rejection of claim 46 partially on the ground that Applicant does not specifically identify any limitation thought to patentably distinguish over Fukui. Applicant herein amends claim 46 and asserts that Fukui fails to disclose the claimed single-piece lid lacking any piece-to-piece interface. Valve holder 7 of Fukui cannot be considered to comprise the single-piece lid since the claimed lid has a thickness similar to a shell thickness of the body. Also, claim 46 sets forth an opening completely through the similar lid thickness defined by sidewalls having a shape that of itself defines a valve seat. Any opening through valve holder 7 cannot be considered to describe the opening of claim 46 since it is not through a lid

thickness similar to fence 14. At least for such reasons, claim 46 is patentable.

Applicant herein establishes adequate reasons supporting patentability of claims 1-29, 37, 38, 40-44, and 46 and requests allowance of all pending claims in the next Office Action.

Respectfully submitted,

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